Fig.1

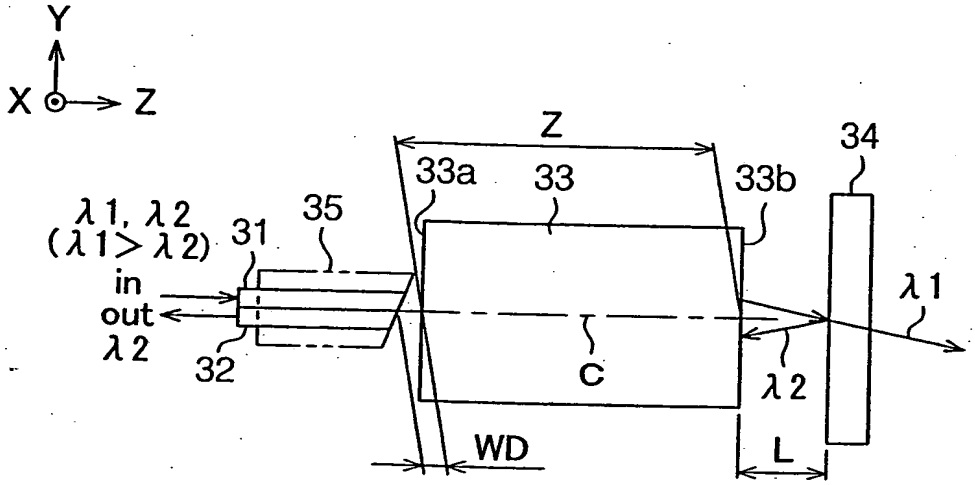

Y
X
Z
Z
34
33a
33
33b
λ1, λ2
(λ1>λ2)
31
35
in
out
λ2
32
C
λ1
λ2
WD
L

Fig.2

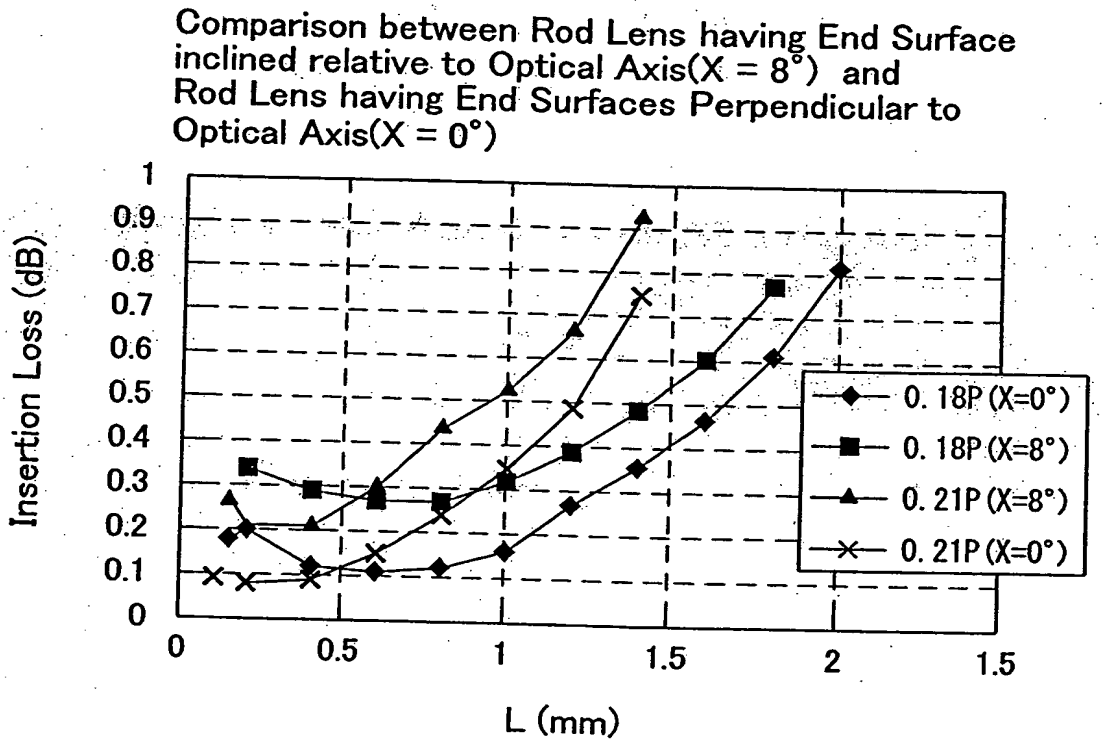

Comparison between Rod Lens having End Surface inclined relative to Optical Axis(X = 8°) and Rod Lens having End Surfaces Perpendicular to Optical Axis(X = 0°)
Insertion Loss (dB)
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
0.5
1
1.5
2
1.5
L (mm)
0.18P (X=0°)
0.18P (X=8°)
0.21P (X=8°)
0.21P (X=0°)

Fig.3

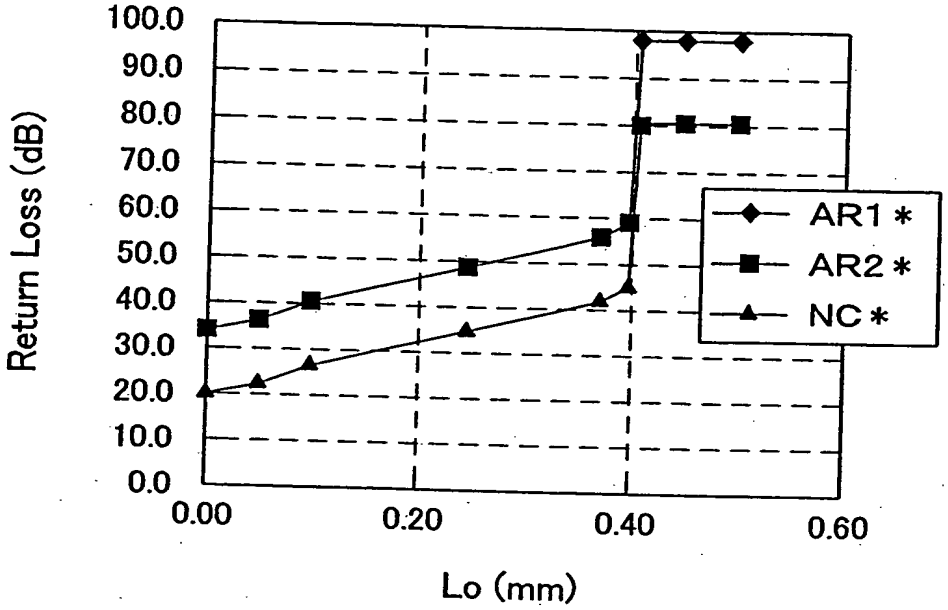

100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Return Loss (dB)
0.00
0.20
0.40
0.60
Lo (mm)
AR1 *
AR2 *
NC *

Fig.4

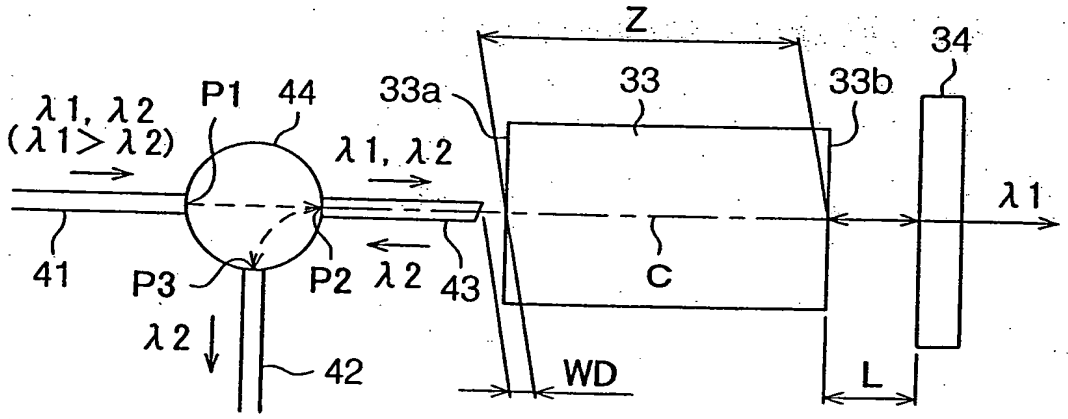
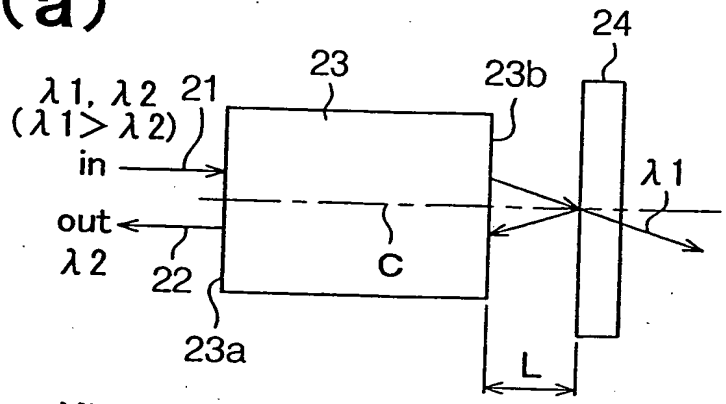
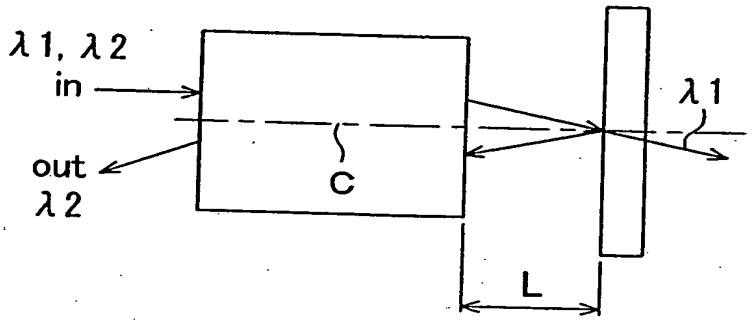

Z
34
33
33a
33b
P1
44
λ1, λ2
(λ1>λ2)
λ1, λ2
λ1
41
P3
P2
λ2
43
C
λ2
42
WD
L

Fig.5(a)



Mirror at Focal Point of Lens

Fig.5(b)



Mirror displaced from Focal Point of Lens

Fig.6(a)

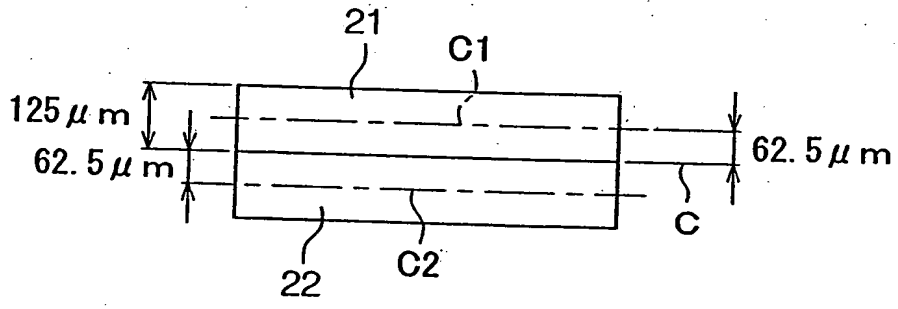


Fig.6(b)

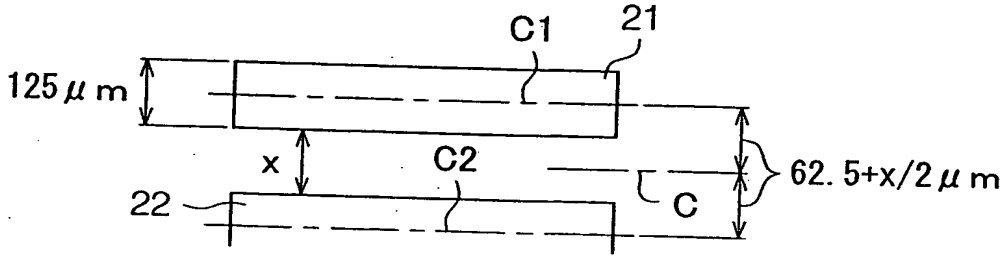


Fig.7

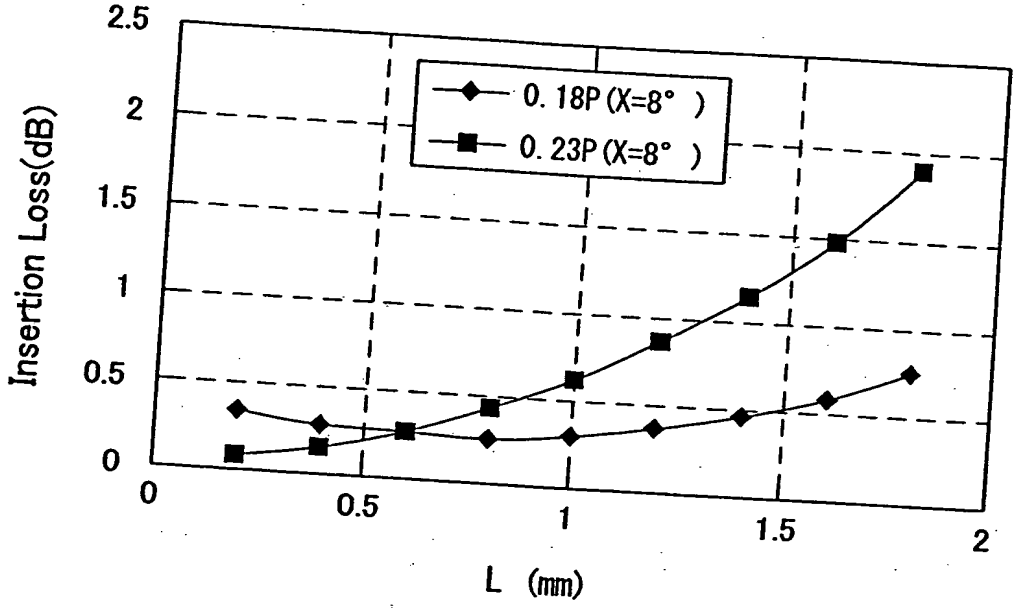
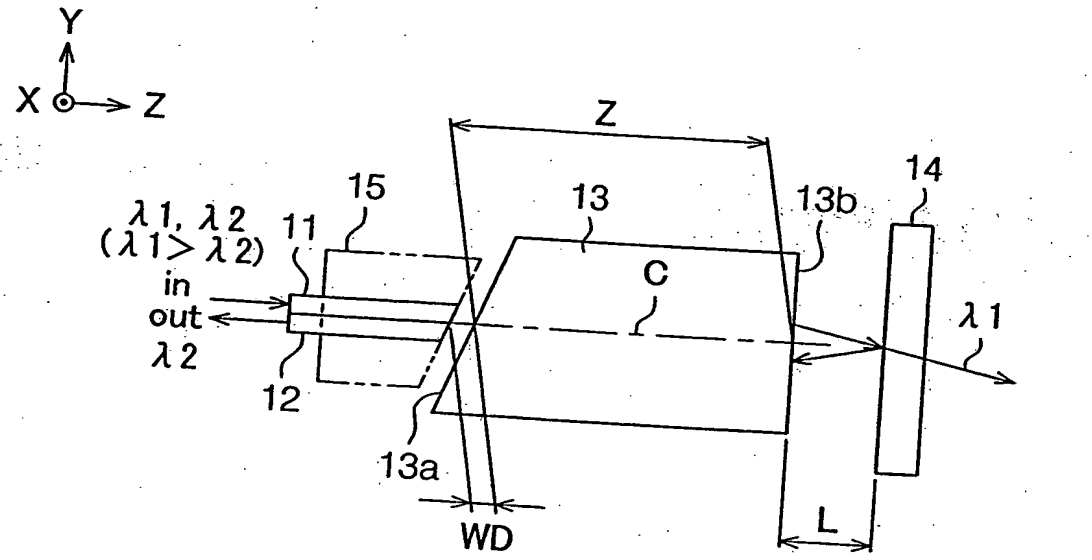



Fig.8 (Prior Art)